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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Friend et. al.

Confirmation No.: 1315

Serial No.: 09/975,843

Art Unit: 1631

Filed: October 12, 2001

Examiner: Marschel, A.

For: METHODS FOR DETERMINING  
PROTEIN ACTIVITY LEVELS  
USING GENE EXPRESSION  
PROFILES

Attorney Docket No: 9301-161

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RESPONSE TO RESTRICTION REQUIREMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

In response to the Office Action mailed May 2, 2003 in connection with the above-identified patent application, please consider the following remarks.

REMARKS

In the Office Action mailed May 2, 2003, the Examiner has required a restriction to one of the following five groups:

- Group I. Claims 53-59, 67, 68, 71, 72, and 79-81; drawn to a computer system or product determining a level of activity of a biologically active cellular constituent, via a perturbation response profile comparison to a diagnostic profile, classified in class 702, subclass 19;
- Group II. Claims 69 and 70; drawn to a computer system for measuring the activity of a drug via a perturbation response profile comparison to a diagnostic profile, classified in class 702, subclass 19;

- Group III. Claims 73, 74, and 82; drawn to a computer system or product for identifying a cell or a cell type that has one or more genetic mutations or polymorphisms that disrupt activity of one or more corresponding gene products, classified in class 702, subclass 19;
- Group IV. Claims 75, 76, and 83; drawn to a computer system or product for determining the dose of one or more drugs to achieve a desired clinical effect in a patient, classified in class 702, subclass 19;
- Group V. Claims 77, 78, and 84; drawn to a computer system or product for determining drug therapy to achieve a desired clinical effect in a patient, classified in class 702, subclass 19.

The Examiner contends that the inventions of Groups I-V are distinct, each from the other. In order to be fully responsive to the Examiner's requirement for a restriction of the instant application, Applicants hereby provisionally elect with traverse to prosecute Group I, claims 53-59, 67, 68, 71, 72, and 79-81, drawn to a computer system or product for determining a level of activity of a biologically active cellular constituent via a perturbation response profile comparison to a diagnostic profile, classified in class 702, subclass 19.

The Examiner has also required an election of one of the following species for prosecution on the merits for either Group I, III, IV, or V:

Species A: Claim embodiments wherein protein(s) activity is profiled; and

Species B: Claim embodiments wherein a non-protein active cellular constituent is profiled as elected specifically or some combination of cellular constituents to be examined as the initial profiling practice.

In addition, the Examiner has further required an election of one of the following species for prosecution on the merits for either Group I or III:

Species C: Claim embodiments wherein the perturbation is a drug; and

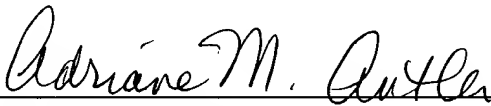
Species D: Claim embodiments wherein a generic non-drug perturbation is utilized.

With respect to an election of species A or B, Applicants hereby provisionally elect with traverse species B. However, Applicants are uncertain as to whether species A and B refer to the substance for which the level of activity is determined, or the substance which is measured in obtaining, e.g., a perturbation response profile. Assuming the latter, then within elected group I, claims 53-59, 67, 68, 71, 72 and 79-81 are believed to read upon species B. Applicants respectfully request that clarification of the species be made. With respect to an election of species C or D, Applicants hereby provisionally elect with traverse species C. Within elected group I, claims 53-59, 67, 68, 71, 72 and 79-81 are believed to read upon species C.

Entry and consideration of the above remarks are respectfully requested.

Respectfully submitted,

Date: June 2, 2003

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